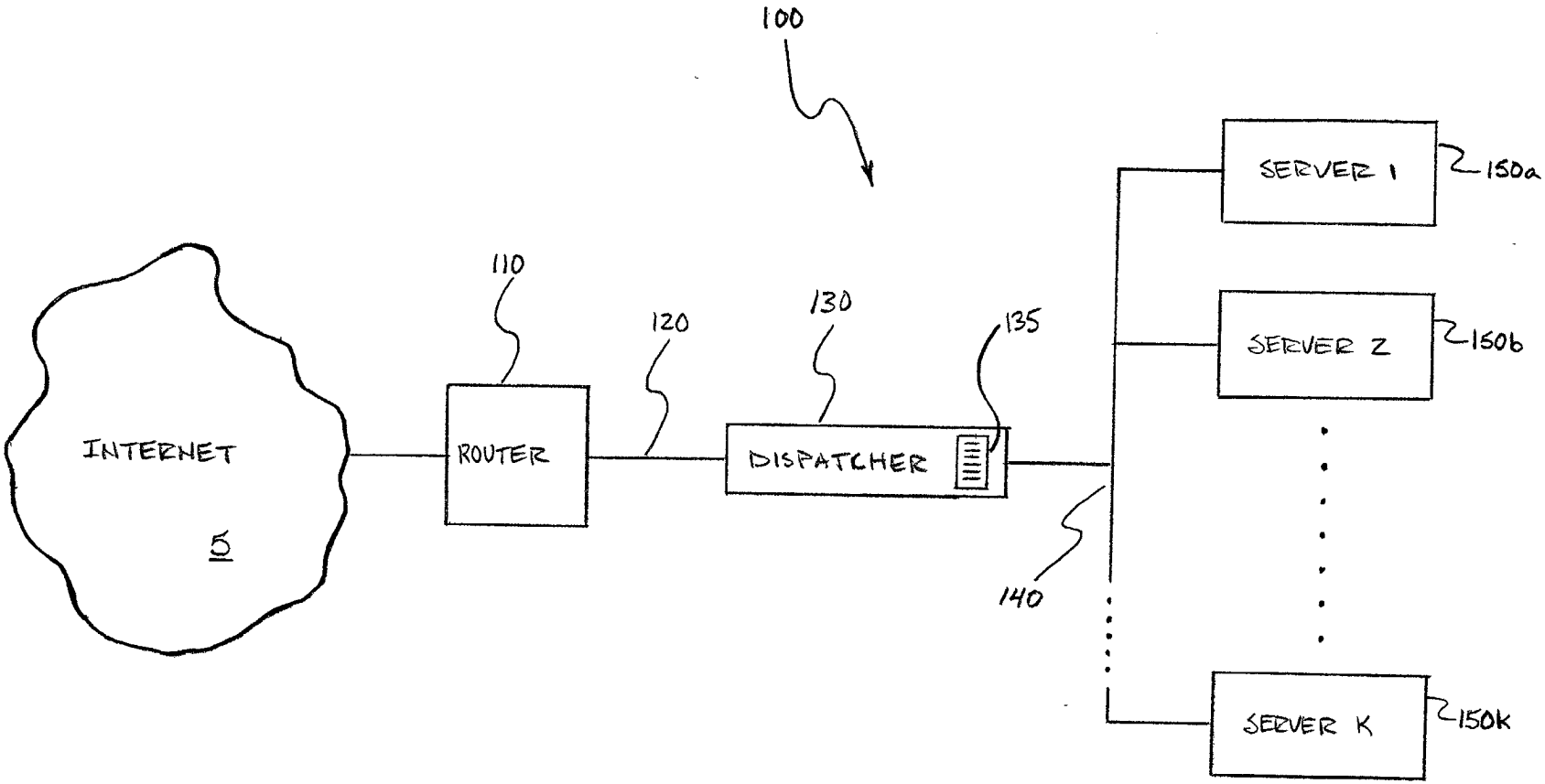

FIG. 1 (PRIOR ART)

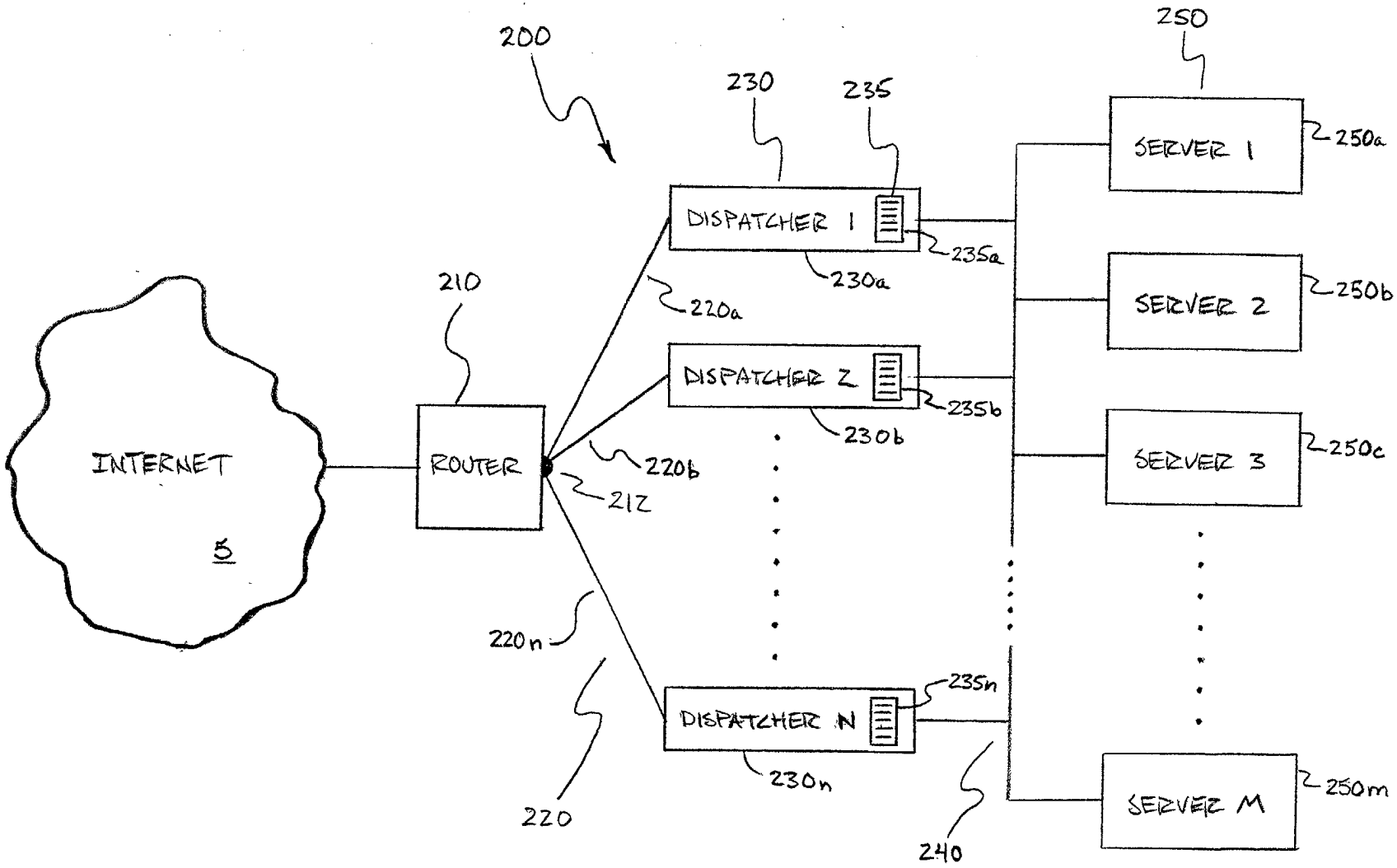
200
230
235
250
SERVER 1
250a
DISPATCHER 1
235a
230a
220a
210
SERVER 2
250b
DISPATCHER 2
235b
230b
INTERNET
5
ROUTER
220b
212
SERVER 3
250c
220n
235n
DISPATCHER N
230n
SERVER M
250m
220
240

FIG. 2

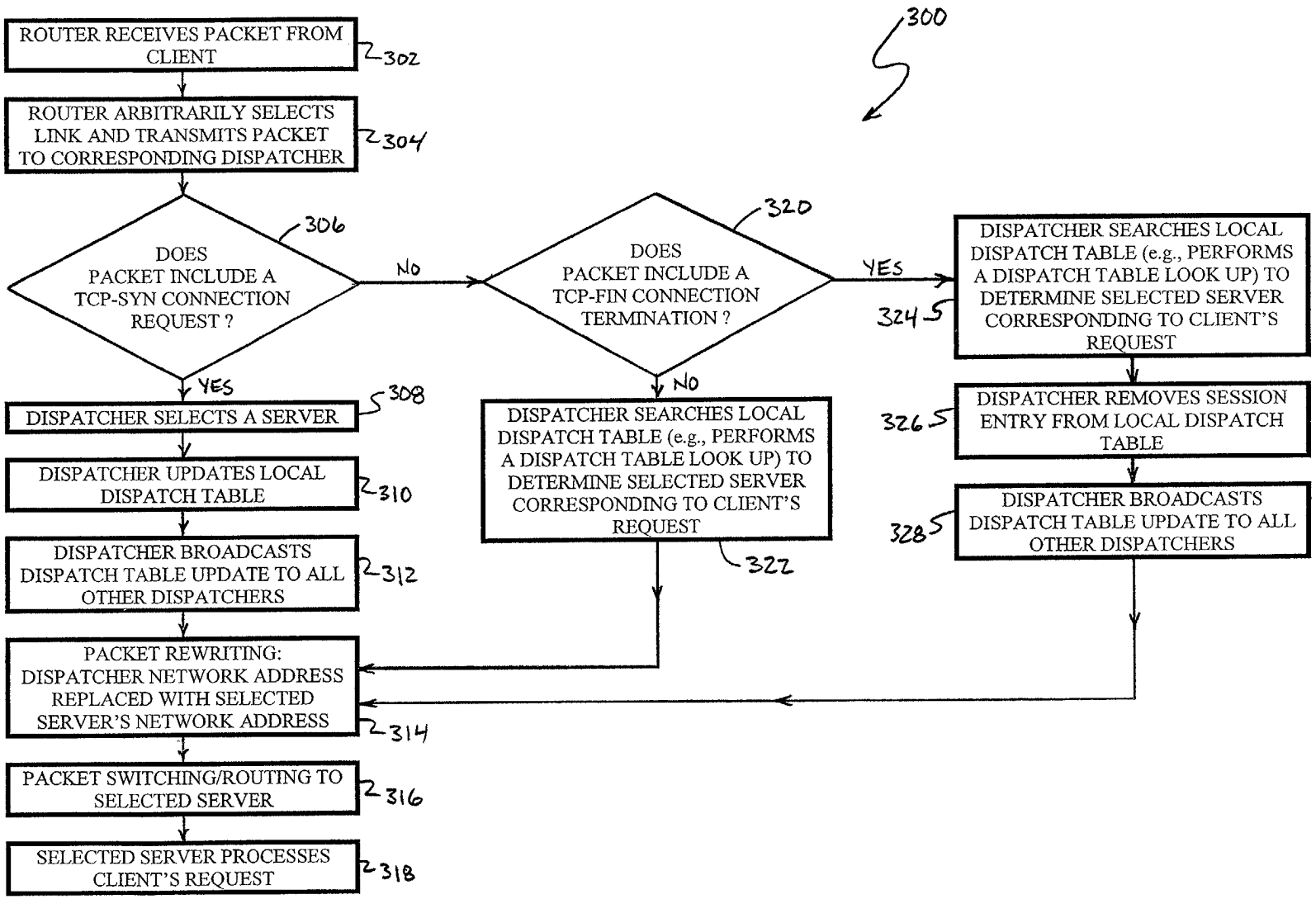
300
ROUTER RECEIVES PACKET FROM CLIENT
302
ROUTER ARBITRARILY SELECTS LINK AND TRANSMITS PACKET TO CORRESPONDING DISPATCHER
304
DOES PACKET INCLUDE A TCP-SYN CONNECTION REQUEST ?
306
NO
YES
DISPATCHER SELECTS A SERVER
308
DISPATCHER UPDATES LOCAL DISPATCH TABLE
310
DISPATCHER BROADCASTS DISPATCH TABLE UPDATE TO ALL OTHER DISPATCHERS
312
DOES PACKET INCLUDE A TCP-FIN CONNECTION TERMINATION ?
320
YES
NO
DISPATCHER SEARCHES LOCAL DISPATCH TABLE (e.g., PERFORMS A DISPATCH TABLE LOOK UP) TO DETERMINE SELECTED SERVER CORRESPONDING TO CLIENT'S REQUEST
322
DISPATCHER SEARCHES LOCAL DISPATCH TABLE (e.g., PERFORMS A DISPATCH TABLE LOOK UP) TO DETERMINE SELECTED SERVER CORRESPONDING TO CLIENT'S REQUEST
324
DISPATCHER REMOVES SESSION ENTRY FROM LOCAL DISPATCH TABLE
326
DISPATCHER BROADCASTS DISPATCH TABLE UPDATE TO ALL OTHER DISPATCHERS
328
PACKET REWRITING: DISPATCHER NETWORK ADDRESS REPLACED WITH SELECTED SERVER'S NETWORK ADDRESS
314
PACKET SWITCHING/ROUTING TO SELECTED SERVER
316
SELECTED SERVER PROCESSES CLIENT'S REQUEST
318

FIG. 3

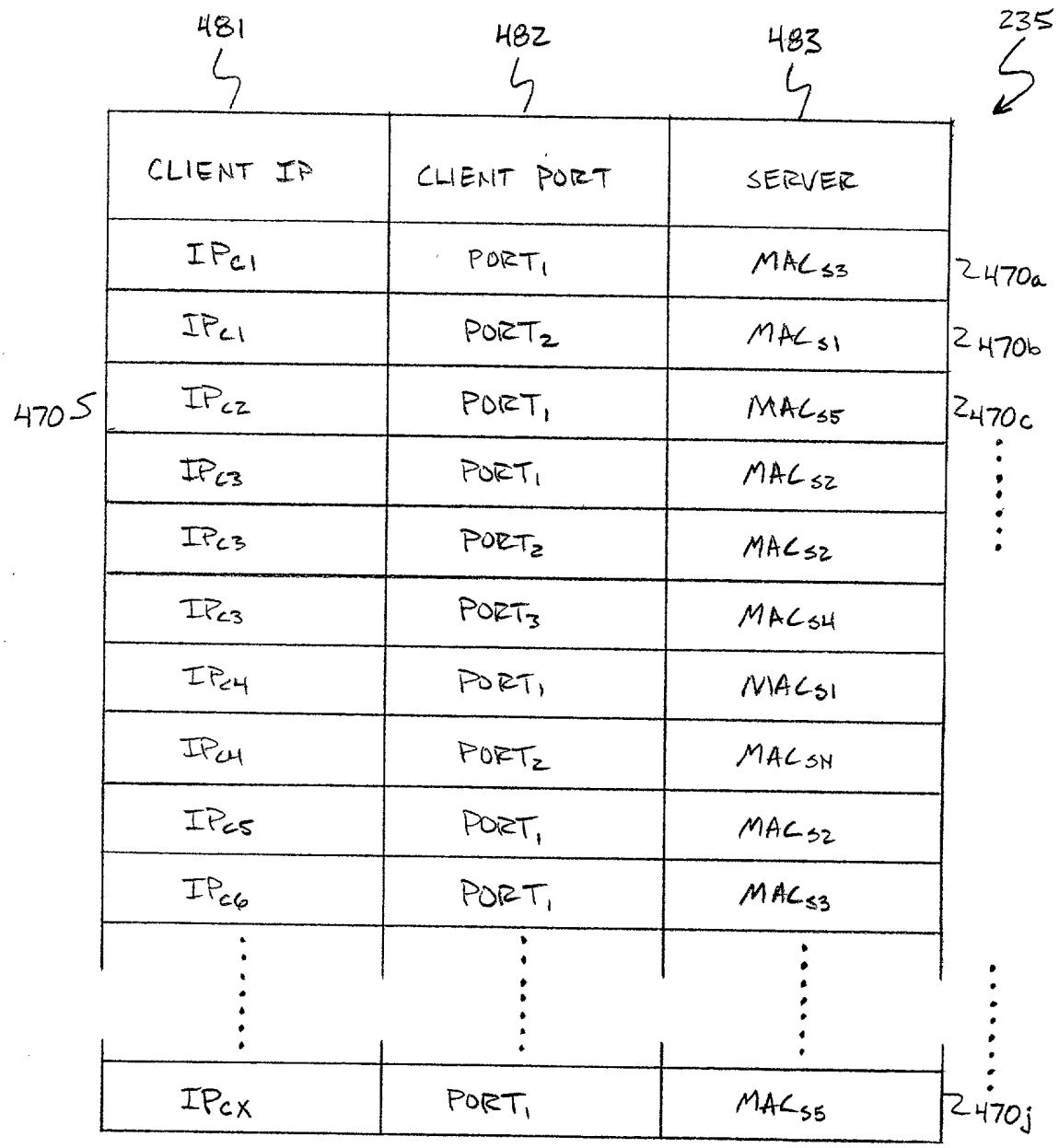
481
482
483
235
CLIENT IP
CLIENT PORT
SERVER
IP_{C1}
$PORT_1$
MAC_{S3}
2470a
IP_{C1}
$PORT_2$
MAC_{S1}
2470b
IP_{C2}
$PORT_1$
MAC_{S5}
2470c
IP_{C3}
$PORT_1$
MAC_{S2}
IP_{C3}
$PORT_2$
MAC_{S2}
IP_{C3}
$PORT_3$
MAC_{S4}
IP_{C4}
$PORT_1$
MAC_{S1}
IP_{C4}
$PORT_2$
MAC_{SN}
IP_{C5}
$PORT_1$
MAC_{S2}
IP_{C6}
$PORT_1$
MAC_{S3}
IP_{CX}
$PORT_1$
MAC_{S5}
2470j
470S

FIG. 4

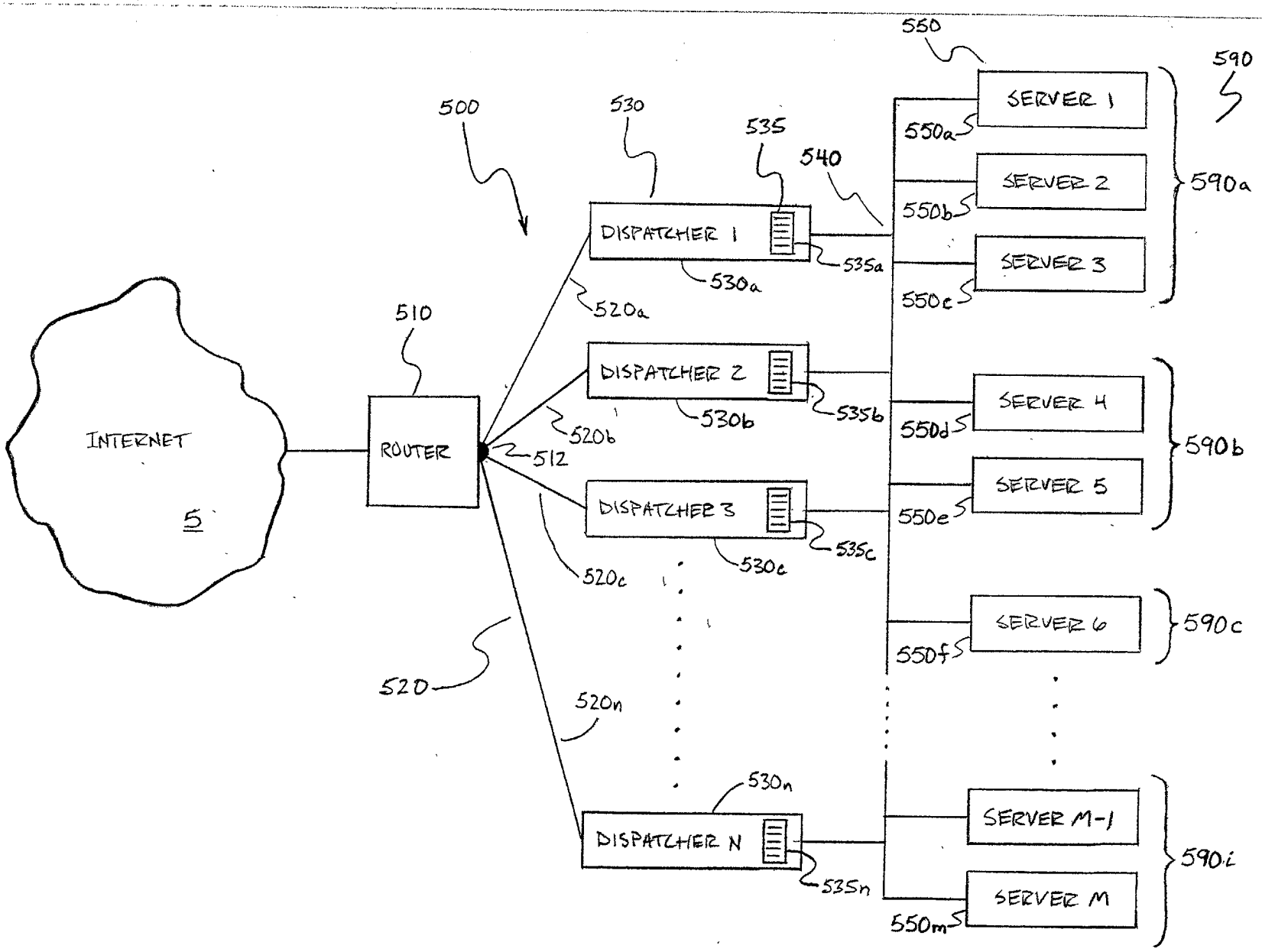
500
510
INTERNET
5
ROUTER
512
520
520a
520b
520c
520n
530
530a
530b
530c
530n
535
535a
535b
535c
535n
540
DISPATCHER 1
DISPATCHER 2
DISPATCHER 3
DISPATCHER N
550
550a
550b
550c
550d
550e
550f
550m
SERVER 1
SERVER 2
SERVER 3
SERVER 4
SERVER 5
SERVER 6
SERVER M-1
SERVER M
590
590a
590b
590c
590i

FIG. 5

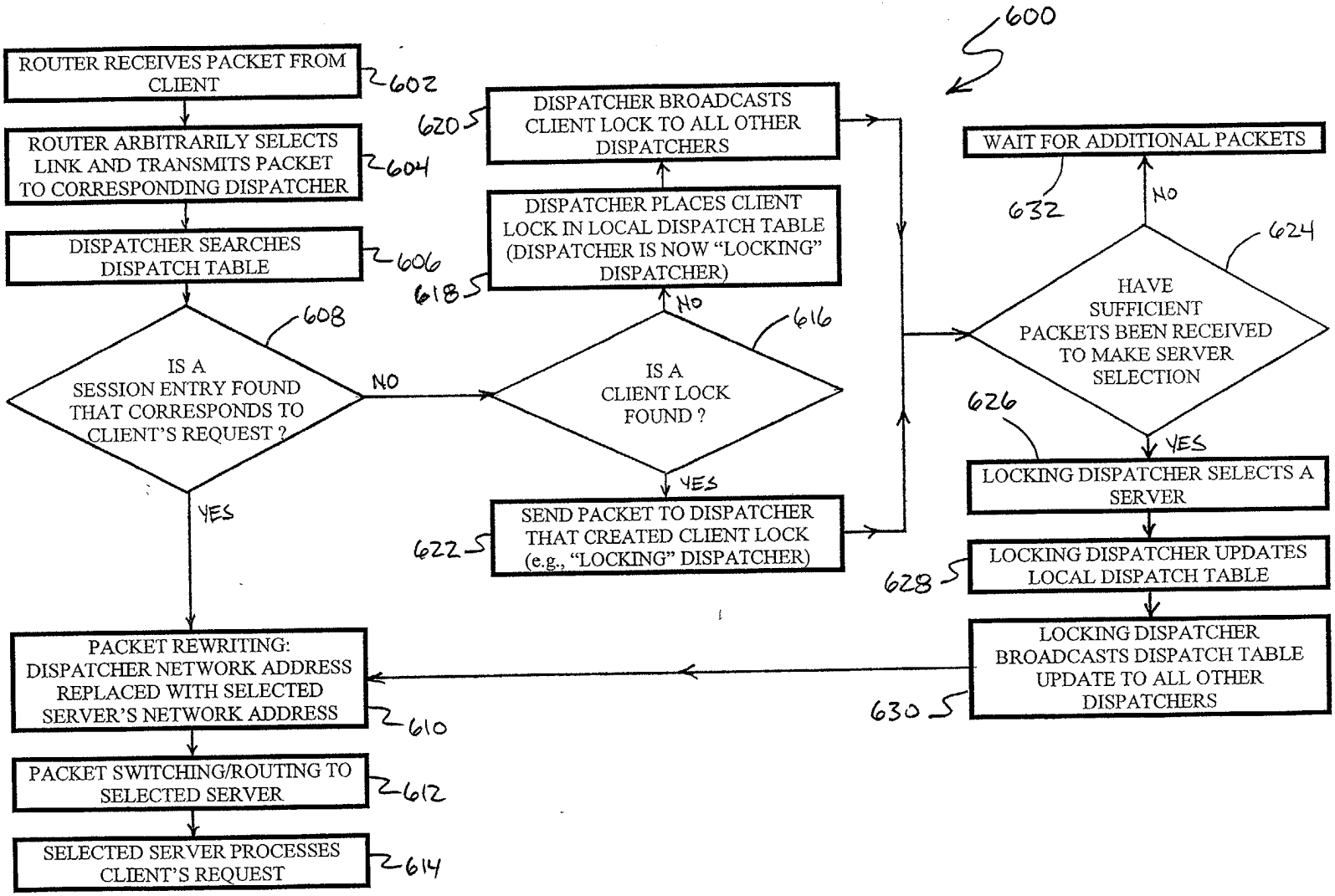
600
ROUTER RECEIVES PACKET FROM CLIENT
602
ROUTER ARBITRARILY SELECTS LINK AND TRANSMITS PACKET TO CORRESPONDING DISPATCHER
604
DISPATCHER SEARCHES DISPATCH TABLE
606
IS A SESSION ENTRY FOUND THAT CORRESPONDS TO CLIENT'S REQUEST ?
608
NO
YES
IS A CLIENT LOCK FOUND ?
616
NO
YES
DISPATCHER PLACES CLIENT LOCK IN LOCAL DISPATCH TABLE (DISPATCHER IS NOW "LOCKING" DISPATCHER)
618
DISPATCHER BROADCASTS CLIENT LOCK TO ALL OTHER DISPATCHERS
620
SEND PACKET TO DISPATCHER THAT CREATED CLIENT LOCK (e.g., "LOCKING" DISPATCHER)
622
HAVE SUFFICIENT PACKETS BEEN RECEIVED TO MAKE SERVER SELECTION
624
NO
YES
WAIT FOR ADDITIONAL PACKETS
632
LOCKING DISPATCHER SELECTS A SERVER
626
LOCKING DISPATCHER UPDATES LOCAL DISPATCH TABLE
628
LOCKING DISPATCHER BROADCASTS DISPATCH TABLE UPDATE TO ALL OTHER DISPATCHERS
630
PACKET REWRITING: DISPATCHER NETWORK ADDRESS REPLACED WITH SELECTED SERVER'S NETWORK ADDRESS
610
PACKET SWITCHING/ROUTING TO SELECTED SERVER
612
SELECTED SERVER PROCESSES CLIENT'S REQUEST
614

FIG. 6